



75 Suttle Street  
Durango, CO 81303  
970.247.4220 Phone  
970.247.4227 Fax  
[www.greenanalytical.com](http://www.greenanalytical.com)

23 September 2015

John Reynolds  
Durango Geophysical Operations  
35853 Highway 550  
Durango, CO 81301  
RE: Pkg.1, Pkg.2 +

Enclosed are the results of analyses for samples received by the laboratory on 09/02/15 15:45.  
If you need any further assistance, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt  
Reports Manager

All accredited analytes contained in this report are denoted by an asterisk (\*). For a complete list of accredited analytes please do not hesitate to contact us via any of the contact information contained in this report. All of our certifications can be viewed at <http://greenanalytical.com/certifications/>

Green Analytical Laboratories is NELAP accredited through the Texas Commission on Environmental Quality. Accreditation applies to drinking water and non-potable water matrices for trace metals and a variety of inorganic parameters. Green Analytical Laboratories is also accredited through the Colorado Department of Public Health and Environment and EPA region 8 for trace metals, Cyanide, Fluoride, Nitrate, and Nitrite in drinking water.

Our affiliate laboratory, Cardinal Laboratories, is also NELAP accredited through the Texas Commission on Environmental Quality for a variety of organic constituents in drinking water, non-potable water and solid matrices. Cardinal is also accredited for regulated VOCs, TTHM, and HAA-5 in drinking water



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

**Reported:**  
09/23/15 17:03

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SIL 07	1509043-01	Water	09/01/15 17:00	09/02/15 15:45
SIL 08	1509043-02	Water	09/01/15 17:00	09/02/15 15:45

Green Analytical Laboratories

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

**SIL 07****1509043-01 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

**General Chemistry**

Acidity	<b>304</b>	20.0		mg/L	2	09/15/15	2310 B		LLG
Chloride*	<10.0	10.0	5.00	mg/L	1	09/14/15	4500-Cl- C		LLG
Conductivity*	<b>2150</b>	10.0		us/cm	1	09/03/15	2510 B		MAJ
Fluoride*	<b>3.56</b>	0.500	0.110	mg/L	2	09/12/15	4500-F- C		ABP
pH*	<b>5.08</b>			pH Units	1	09/03/15	EPA150.1		MAJ
TDS*	<b>2230</b>	10.0		mg/L	1	09/09/15	EPA160.1	H2	ABP
Sulfate	<b>1570</b>	500	84.0	mg/L	50	09/14/15	4500-SO42- E		ABP

**Total Recoverable Metals by ICP (E200.7)**

Aluminum*	<b>4.23</b>	0.500	0.200	mg/L	10	09/10/15	EPA200.7		JGS
Calcium*	<b>460</b>	0.200	0.028	mg/L	10	09/10/15	EPA200.7		JGS
Gold	<0.100	0.100		mg/L	1	09/23/15	EPA200.7		JGS
Iron*	<b>151</b>	0.500	0.035	mg/L	10	09/10/15	EPA200.7		JGS
Magnesium*	<b>31.4</b>	1.00	0.324	mg/L	10	09/10/15	EPA200.7		JGS
Hardness	<b>1280</b>	4.62	1.40	mg/L	10	09/10/15	2340 B		JGS
Potassium*	<b>1.63</b>	1.00	0.335	mg/L	1	09/10/15	EPA200.7		JGS
Sodium*	<b>8.72</b>	1.00	0.305	mg/L	1	09/10/15	EPA200.7		JGS

**Total Recoverable Metals by ICPMS (E200.8)**

Antimony*	<0.0100	0.0100	0.0013	mg/L	20	09/14/15	EPA200.8		JGS
Arsenic*	<0.0100	0.0100	0.0030	mg/L	20	09/14/15	EPA200.8		JGS
Barium*	<0.0100	0.0100	0.0009	mg/L	20	09/14/15	EPA200.8		JGS
Beryllium*	<0.0100	0.0100	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Cadmium*	<b>0.0020</b>	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Chromium*	<0.0600	0.0600	0.0040	mg/L	20	09/14/15	EPA200.8		JGS
Copper*	<b>0.0039</b>	0.0020	0.0012	mg/L	20	09/14/15	EPA200.8		JGS
Lead*	<0.0100	0.0100	0.0007	mg/L	20	09/14/15	EPA200.8		JGS
Manganese*	<b>46.0</b>	0.0100	0.0011	mg/L	20	09/14/15	EPA200.8		JGS
Nickel*	<b>0.0789</b>	0.0100	0.0004	mg/L	20	09/14/15	EPA200.8		JGS
Selenium*	<0.0200	0.0200	0.0069	mg/L	20	09/14/15	EPA200.8		JGS
Silver*	<0.0020	0.0020	0.0005	mg/L	20	09/14/15	EPA200.8		JGS
Thallium*	<0.0020	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

**Reported:**  
09/23/15 17:03

**SIL 07**

**1509043-01 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

**Total Mercury by CVAA**

Mercury*	<0.0002	0.0002	0.00002	mg/L	1	09/10/15	245.1	V1	JGS
----------	---------	--------	---------	------	---	----------	-------	----	-----

Green Analytical Laboratories

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

**SIL 08****1509043-02 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
<b>General Chemistry</b>									
Acidity	<b>386</b>	20.0		mg/L	2	09/15/15	2310 B		LLG
Chloride*	<10.0	10.0	5.00	mg/L	1	09/14/15	4500-Cl- C		LLG
Conductivity*	<b>2180</b>	10.0		uS/cm	1	09/03/15	2510 B		MAJ
Fluoride*	<b>10.1</b>	2.50	0.550	mg/L	10	09/12/15	4500-F- C		ABP
pH*	<b>3.13</b>			pH Units	1	09/03/15	EPA150.1		MAJ
TDS*	<b>2030</b>	10.0		mg/L	1	09/09/15	EPA160.1	H2	ABP
Sulfate	<b>1420</b>	500	84.0	mg/L	50	09/14/15	4500-SO42- E		ABP
<b>Total Recoverable Metals by ICP (E200.7)</b>									
Aluminum*	<b>27.5</b>	0.050	0.020	mg/L	1	09/11/15	EPA200.7		JGS
Calcium*	<b>351</b>	0.200	0.028	mg/L	10	09/15/15	EPA200.7		JGS
Gold	<0.100	0.100		mg/L	1	09/23/15	EPA200.7		JGS
Iron*	<b>101</b>	0.050	0.003	mg/L	1	09/11/15	EPA200.7		JGS
Magnesium*	<b>25.6</b>	0.100	0.032	mg/L	1	09/11/15	EPA200.7		JGS
Hardness	<b>982</b>	0.911	0.202	mg/L	10	09/15/15	2340 B		JGS
Potassium*	<b>1.86</b>	1.00	0.335	mg/L	1	09/11/15	EPA200.7		JGS
Sodium*	<b>4.65</b>	1.00	0.305	mg/L	1	09/11/15	EPA200.7		JGS
<b>Total Recoverable Metals by ICPMS (E200.8)</b>									
Antimony*	<0.0100	0.0100	0.0013	mg/L	20	09/14/15	EPA200.8		JGS
Arsenic*	<b>0.0275</b>	0.0100	0.0030	mg/L	20	09/14/15	EPA200.8		JGS
Barium*	<b>0.0174</b>	0.0100	0.0009	mg/L	20	09/14/15	EPA200.8		JGS
Beryllium*	<b>0.0111</b>	0.0100	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Cadmium*	<b>0.0812</b>	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS
Chromium*	<0.0600	0.0600	0.0040	mg/L	20	09/14/15	EPA200.8		JGS
Copper*	<b>5.77</b>	0.0020	0.0012	mg/L	20	09/14/15	EPA200.8		JGS
Lead*	<b>0.0502</b>	0.0100	0.0007	mg/L	20	09/14/15	EPA200.8		JGS
Manganese*	<b>34.3</b>	0.0100	0.0011	mg/L	20	09/14/15	EPA200.8		JGS
Nickel*	<b>0.0686</b>	0.0100	0.0004	mg/L	20	09/14/15	EPA200.8		JGS
Selenium*	<0.0200	0.0200	0.0069	mg/L	20	09/14/15	EPA200.8		JGS
Silver*	<0.0020	0.0020	0.0005	mg/L	20	09/14/15	EPA200.8		JGS
Thallium*	<0.0020	0.0020	0.0003	mg/L	20	09/14/15	EPA200.8		JGS

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

**Reported:**  
09/23/15 17:03

**SIL 08**

**1509043-02 (Water)**

Analyte	Result	RL	MDL	Units	Dilution	Analyzed	Method	Notes	Analyst
---------	--------	----	-----	-------	----------	----------	--------	-------	---------

**Total Mercury by CVAA**

Mercury*	<0.0002	0.0002	0.00002	mg/L	1	09/10/15	245.1	V1	JGS
----------	---------	--------	---------	------	---	----------	-------	----	-----

Green Analytical Laboratories

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509075 - General Prep - Wet Chem

Duplicate (B509075-DUP2)	Source: 1509051-01	Prepared & Analyzed: 09/03/15				
pH	8.06	pH Units		8.04		0.248 20
Reference (B509075-SRM1)		Prepared & Analyzed: 09/03/15				
pH	9.02	pH Units	9.13	98.8	97.807-102.193	

#### Batch B509082 - General Prep - Wet Chem

Duplicate (B509082-DUP2)	Source: 1509051-08	Prepared & Analyzed: 09/03/15				
Conductivity	1570	10.0	uS/cm	1560		0.511 20
Reference (B509082-SRM1)		Prepared & Analyzed: 09/03/15				
Conductivity	596	uS/cm	543	110	90-110	

#### Batch B509129 - General Prep - Wet Chem

Blank (B509129-BLK1)	Prepared & Analyzed: 09/12/15				
Fluoride	ND	0.250	mg/L		
LCS (B509129-BS1)	Prepared & Analyzed: 09/12/15				
Fluoride	0.951	0.250	mg/L	1.00	95.1 85-115
LCS Dup (B509129-BSD1)	Prepared & Analyzed: 09/12/15				
Fluoride	0.942	0.250	mg/L	1.00	94.2 85-115 0.951 20

#### Batch B509134 - General Prep - Wet Chem

Blank (B509134-BLK1)	Prepared & Analyzed: 09/09/15				
TDS	ND	10.0	mg/L		

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

www.GreenAnalytical.com

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509134 - General Prep - Wet Chem

Duplicate (B509134-DUP2)	Source: 1509050-01			Prepared & Analyzed: 09/09/15					
TDS	355	10.0	mg/L		365			2.78	20
Reference (B509134-SRM1)	Prepared & Analyzed: 09/09/15								
TDS	560	10.0	mg/L	590		94.9	85-115		

#### Batch B509149 - General Prep - Wet Chem

Blank (B509149-BLK1)	Prepared & Analyzed: 09/14/15							
Chloride	ND	10.0	mg/L					
LCS (B509149-BS1)	Prepared & Analyzed: 09/14/15							
Chloride	105	10.0	mg/L	100	105	85-115		
LCS Dup (B509149-BSD1)	Prepared & Analyzed: 09/14/15							
Chloride	104	10.0	mg/L	100	104	85-115	0.957	20

#### Batch B509151 - General Prep - Wet Chem

Blank (B509151-BLK1)	Prepared & Analyzed: 09/14/15							
Sulfate	ND	10.0	mg/L					
LCS (B509151-BS1)	Prepared & Analyzed: 09/14/15							
Sulfate	46.7	10.0	mg/L	50.0	93.4	85-115		
LCS Dup (B509151-BSD1)	Prepared & Analyzed: 09/14/15							
Sulfate	45.6	10.0	mg/L	50.0	91.2	85-115	2.38	20

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509096 - EPA 200.2

##### Blank (B509096-BLK1)

Aluminum	ND	0.050	mg/L
Calcium	ND	0.020	mg/L
Iron	ND	0.050	mg/L
Magnesium	ND	0.100	mg/L
Potassium	ND	1.00	mg/L
Sodium	ND	1.00	mg/L

Prepared & Analyzed: 09/10/15

##### LCS (B509096-BS1)

Aluminum	3.97	0.050	mg/L	4.00	99.4	85-115
Calcium	4.06	0.020	mg/L	4.00	101	85-115
Iron	4.04	0.050	mg/L	4.00	101	85-115
Magnesium	20.2	0.100	mg/L	20.0	101	85-115
Potassium	8.03	1.00	mg/L	8.00	100	85-115
Sodium	6.63	1.00	mg/L	6.48	102	85-115

Prepared & Analyzed: 09/10/15

##### LCS Dup (B509096-BSD1)

Aluminum	4.02	0.050	mg/L	4.00	100	85-115	1.11	20
Calcium	4.07	0.020	mg/L	4.00	102	85-115	0.416	20
Iron	4.13	0.050	mg/L	4.00	103	85-115	2.16	20
Magnesium	20.4	0.100	mg/L	20.0	102	85-115	0.989	20
Potassium	8.06	1.00	mg/L	8.00	101	85-115	0.382	20
Sodium	6.64	1.00	mg/L	6.48	102	85-115	0.0634	20

Prepared & Analyzed: 09/10/15

#### Batch B509115 - EPA 200.2

##### Blank (B509115-BLK1)

Aluminum	ND	0.050	mg/L
Calcium	0.034	0.020	mg/L
Iron	ND	0.050	mg/L
Magnesium	ND	0.100	mg/L
Potassium	ND	1.00	mg/L
Sodium	ND	1.00	mg/L

Prepared & Analyzed: 09/11/15

B1

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Page 9 of 16



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### Total Recoverable Metals by ICP (E200.7) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509115 - EPA 200.2

##### LCS (B509115-BS1)

	Prepared & Analyzed: 09/11/15					
Aluminum	3.91	0.050	mg/L	4.00	97.9	85-115
Calcium	4.05	0.020	mg/L	4.00	101	85-115
Iron	3.84	0.050	mg/L	4.00	96.0	85-115
Magnesium	19.9	0.100	mg/L	20.0	99.5	85-115
Potassium	7.47	1.00	mg/L	8.00	93.3	85-115
Sodium	6.14	1.00	mg/L	6.48	94.8	85-115

##### LCS Dup (B509115-BSD1)

	Prepared & Analyzed: 09/11/15					
Aluminum	3.94	0.050	mg/L	4.00	98.6	85-115
Calcium	4.11	0.020	mg/L	4.00	103	85-115
Iron	3.86	0.050	mg/L	4.00	96.5	85-115
Magnesium	20.0	0.100	mg/L	20.0	100	85-115
Potassium	7.65	1.00	mg/L	8.00	95.6	85-115
Sodium	6.18	1.00	mg/L	6.48	95.3	85-115

#### Batch B509264 - EPA 200.2

##### Blank (B509264-BLK1)

	Prepared & Analyzed: 09/23/15		
Gold	ND	0.100	mg/L

##### LCS (B509264-BS1)

	Prepared & Analyzed: 09/23/15				
Gold	4.85	0.100	mg/L	5.00	97.0

##### LCS Dup (B509264-BSD1)

	Prepared & Analyzed: 09/23/15					
Gold	5.18	0.100	mg/L	5.00	104	85-115

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Page 10 of 16



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509120 - EPA 200.2M

##### Blank (B509120-BLK1)

Prepared: 09/11/15 Analyzed: 09/14/15

Antimony	ND	0.0005	mg/L							
Arsenic	ND	0.0005	mg/L							
Barium	ND	0.0005	mg/L							
Beryllium	ND	0.0005	mg/L							
Cadmium	ND	0.0001	mg/L							
Chromium	0.0018	0.0010	mg/L							B3
Copper	0.0001	0.0001	mg/L							B1
Lead	ND	0.0005	mg/L							
Manganese	ND	0.0005	mg/L							
Nickel	ND	0.0005	mg/L							
Selenium	ND	0.0010	mg/L							
Silver	ND	0.0001	mg/L							
Thallium	ND	0.0001	mg/L							

##### LCS (B509120-BS1)

Prepared: 09/11/15 Analyzed: 09/14/15

Antimony	0.0484	0.0005	mg/L	0.0500	96.9	85-115
Arsenic	0.0464	0.0005	mg/L	0.0500	92.9	85-115
Barium	0.0478	0.0005	mg/L	0.0500	95.6	85-115
Beryllium	0.0487	0.0005	mg/L	0.0500	97.4	85-115
Cadmium	0.0466	0.0001	mg/L	0.0500	93.2	85-115
Chromium	0.0501	0.0010	mg/L	0.0500	100	85-115
Copper	0.0450	0.0001	mg/L	0.0500	90.0	85-115
Lead	0.0458	0.0005	mg/L	0.0500	91.5	85-115
Manganese	0.0484	0.0005	mg/L	0.0500	96.8	85-115
Nickel	0.0457	0.0005	mg/L	0.0500	91.4	85-115
Selenium	0.229	0.0010	mg/L	0.250	91.5	85-115
Silver	0.0463	0.0001	mg/L	0.0500	92.5	85-115
Thallium	0.0453	0.0001	mg/L	0.0500	90.6	85-115

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### Total Recoverable Metals by ICPMS (E200.8) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509120 - EPA 200.2M

LCS Dup (B509120-BSD1) Prepared: 09/11/15 Analyzed: 09/14/15

Antimony	0.0487	0.0005	mg/L	0.0500	97.4	85-115	0.473	20
Arsenic	0.0505	0.0005	mg/L	0.0500	101	85-115	8.34	20
Barium	0.0501	0.0005	mg/L	0.0500	100	85-115	4.70	20
Beryllium	0.0523	0.0005	mg/L	0.0500	105	85-115	7.11	20
Cadmium	0.0483	0.0001	mg/L	0.0500	96.5	85-115	3.49	20
Chromium	0.0521	0.0010	mg/L	0.0500	104	85-115	3.75	20
Copper	0.0490	0.0001	mg/L	0.0500	98.1	85-115	8.58	20
Lead	0.0474	0.0005	mg/L	0.0500	94.7	85-115	3.44	20
Manganese	0.0499	0.0005	mg/L	0.0500	99.8	85-115	3.13	20
Nickel	0.0469	0.0005	mg/L	0.0500	93.8	85-115	2.62	20
Selenium	0.233	0.0010	mg/L	0.250	93.1	85-115	1.76	20
Silver	0.0476	0.0001	mg/L	0.0500	95.3	85-115	2.91	20
Thallium	0.0474	0.0001	mg/L	0.0500	94.8	85-115	4.48	20

Green Analytical Laboratories

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Page 12 of 16



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

Reported:  
09/23/15 17:03

### Total Mercury by CVAA- Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

#### Batch B509104 - EPA 245.1/7470

Blank (B509104-BLK1)		Prepared & Analyzed: 09/10/15								
Mercury	ND	0.0002	mg/L							
LCS (B509104-BS1)		Prepared & Analyzed: 09/10/15								
Mercury	0.0021	0.0002	mg/L	0.00200		103	85-115			
LCS Dup (B509104-BSD1)		Prepared & Analyzed: 09/10/15								
Mercury	0.0023	0.0002	mg/L	0.00200		114	85-115	9.84	20	

Green Analytical Laboratories

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GALs liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Page 13 of 16



dzufelt@greenanalytical.com p: 970.247.4220 f: 970.247.4227 75 Suttle Street Durango, CO 81303

[www.GreenAnalytical.com](http://www.GreenAnalytical.com)

Durango Geophysical Operations  
35853 Highway 550  
Durango CO, 81301

Project: Pkg.1, Pkg.2 +  
Project Name / Number: [none]  
Project Manager: John Reynolds

**Reported:**  
09/23/15 17:03

### Notes and Definitions

V1	Continuing calibration verification recovery was above laboratory acceptance limits. Target analyte was not detected in the sample.
H2	Sample analysis performed past hold time specified by the method.
B3	Target analyte detected in method blank or continuing calibration blank. Reporting limit elevated to account for blank result.
B1	Target analyte detected in method blank at or above method reporting limit. Sample concentration found to be 10 times above the concentration found in the method blank or less than the reporting limit.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis *Results reported on as received basis unless designated as dry.
RPD	Relative Percent Difference
LCS	Laboratory Control Sample (Blank Spike)
RL	Report Limit
MDL	Method Detection Limit

Green Analytical Laboratories

A handwritten signature in black ink that reads "Debbie Zufelt".

Debbie Zufelt, Reports Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. In no event shall Green Analytical Laboratories be liable for incidental or consequential damages. GAL's liability, and clients exclusive remedy for any claim arising, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever, shall be deemed waived unless made in writing and received within thirty days after completion of the applicable service.

Page 14 of 16



(970) 247-4220  
Fax: (970) 247-4227

service@greenanalytical.com or dzufelt@greenanalytical.com  
**75 Suttle St Durango, CO 81303**

## **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

**PLEASE NOTE:** GAL's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by GAL within 30 days after completion. In no event shall GAL be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by GAL regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:		Date: <u>1/21/15</u>	Received By: <u>Debbie Zufelt</u>	ADDITIONAL REMARKS:	Report to State? (Circle)
		Time: <u>5:45</u>			
Relinquished By:		Date:	Received By:		
		Time:			
Relinquished By:		Date:	Received By:		
		Time:			
Delivered By: (Circle One) Sampler - UPS - FedEx - Kangaroo - Other:			Temperature at receipt: <u>12.4°C</u>	CHECKED BY: <u>DG</u>	

\* Chain of Custody must be signed in "Relinquished By:" as an acceptance of services and all applicable charges.



## Common Water Quality Analysis Packages

Effective January 1, 2015

Green Analytical Laboratories  
75 Suttle Street  
Durango, CO 81303  
P: 970-247-4220 -- F: 970-247-4227

- Minimum Charge for any work-order is \$75.00.
- Payment is due in full prior to reporting of results.
- Standard turnaround time is 10 business days.
- Prices include all costs including sampling containers.

**(Package #1) General Water Quality:** This package provides information relative to the basic mineral content of surface and ground waters. It can be used to assess common water issues but does not contain many low level health concerns.

TESTS: pH, Conductivity, Total Dissolved Solids, Alkalinity, Hardness, Chloride, Fluoride, Sulfate, Calcium, Magnesium, Potassium, Sodium and Iron.....\$184.00

**(Package #2) Safe Drinking Water Act Inorganic Chemistry Parameters:** This package targets many naturally occurring, low level human health concerns but does not provide much information in regards to general water quality.

TESTS: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Fluoride, Lead, Mercury, Nickel, Selenium, Sodium, Sulfate, Thallium and Nitrate/Nitrite.....\$305.00 ←

*Aluminum, Gold & Silver*      *Mn?*  
\*Note: Cost of Package #1 and #2 combined (covers most common water concerns).....\$446.00

### Common additions to Package #1 or #2 (Mostly specific industrial contamination sources)

Add Selenium, Manganese, and Nitrate/Nitrite to package #1 for "gas monitor wells" (water near coal-bed methane production wells).....\$60.00

(BTEX) Benzene, toluene, ethyl-benzene, and xylene: This is the least expensive organic hazards option and contains the most commonly seen organic contaminates.....\$60.00

(VOCs) Volatile Organic Compounds: Full list including BTEX and many other organic, industrial contaminates. Does not include SOC's such as Pesticides and PCBs.....\$200.00

(RadChem) Basic Radioactive Chemistry: Includes Gross A/B particles, Radium 226/228, and Uranium.....\$398.00

-Metals samples that contain sediment or have a high turbidity may require a digest for proper metals analysis. In this event an additional \$15 per sample requiring digest will be assessed.

-Any combination of analytes above can be tested as well as many not mentioned. Contact us with your desired suite for pricing. These suites represent our most commonly analyzed packages. These analysis suites are shown for your convenience, but may not be adequate depending on your specific situation.